

In the Abstract:

ABSTRACT OF THE DISCLOSURE

~~AN OPTICAL DEVICE AND A METHOD FOR CONVERTING WDM SIGNALS INTO AN OTDM SIGNAL
AND VICE-VERSA~~

~~The invention relates to a~~ A ~~device and a method for converting WDM signals into an OTDM~~
~~signal. The device comprises shifting means (102, 103, 104) adapted to introduce a~~ A ~~time shift is~~
~~introduced~~ introduced ~~between the pulses of the WDM signals carried by the optical carriers. [[,]]~~ A ~~modulation means~~
~~is (112, 113, 114) adapted to modify the optical power of the WDM signals, and an optical temporal~~
~~multiplexer/ demultiplexer (120) is provided. [[,]] a birefringent propagation medium (130) into which the~~ The
~~WDM signals are injected into a birefringent propagation medium (130) in such a manner as to achieve a~~
~~soliton trapping phenomenon. [[, and]]~~ An ~~absorption means (140) is adapted to introduce optical losses~~
~~into the components of the OTDM signal. This device technique performs WDM/OTDM conversion at very~~
~~high bit rates. It also performs OTDM/WDM conversion. It is intended to be installed in long-haul~~
~~telecommunication networks.~~